Analysis of the emotional health of school adolescents

Análise da saúde emocional de adolescentes escolares

ABSTRACT

Objective: to analyze the emotional health of school adolescents. Methods: a parallel mixed study embedded concomitantly in a dominant model with a quantitative emphasis, carried out in a public school of reference, with a convenience sample of 55 adolescents aged between 13 and 19. The quantitative data was analyzed descriptively, and the qualitative data was analyzed through content analysis. Results: it was found that 80% of the adolescents said they were anxious, 47.2% were sad, and 32.7% had already self-harmed or attempted suicide. They said their sadness was due to their life story, fear of rejection, and low self-esteem, and 70.9% felt lonely and reported that their depressed mood led them to isolate themselves. Conclusion: sadness due to life history, fear of rejection and low self-esteem, sleep problems due to anxiety, loneliness due to fear of being bullied, difficulty in making themselves understood, and depressive symptoms are noticeable. Contributions to practice: this study made it possible to identify the needs and social determinants of mental health that are important to work on in nurses’ mental health promotion practice.

Descriptors: Mental Health; Adolescent; Adolescent Behavior; School Mental Health Services.

RESUMO

Objetivo: analisar a saúde emocional de adolescentes escolares. Métodos: estudo misto paralelo incrustado concomitantemente de modelo dominante com ênfase quantitativa, realizado em uma escola pública de referência, com uma amostra de conveniência de 55 adolescentes na faixa etária de 13 a 19 anos. Os dados quantitativos foram analisados de forma descritiva, e os qualitativos por meio da análise de conteúdo. Resultados: encontrou-se que 80% dos adolescentes se dizem ansiosos, 47,2% são tristes e 32,7% já se automutilaram ou tentaram suicídio, e as falas colocam a tristeza devido à história de vida, ao medo de rejeição e à baixa autoestima; e 70,9% se sentiam sozinhos e relataram que humor depressivo os levava ao isolamento. Conclusão: é perceptível a tristeza pela história de vida, medo de rejeição e a baixa autoestima, problemas com sono devido à ansiedade, solidão pelo medo de sofrer bullying, pela dificuldade de se fazer compreender e pelos sintomas depressivos. Contribuições para a prática: esse estudo possibilitou o levantamento de necessidades e determinantes sociais de saúde mental importantes de serem trabalhados na prática de promoção da saúde mental do enfermeiro.

Descritores: Saúde Mental; Adolescente; Comportamento do Adolescente; Serviços de Saúde Mental Escolar.

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Introduction

Mental health is a state of well-being in which individuals can develop their skills, cope with adversity and changes in their daily lives, be productive, and actively participate in society\(^\text{(1)}\). However, emotional imbalance, especially in adolescence, contributes to the emergence of mental illnesses, such as depression, which directly interferes with adolescents behavior, school performance, and interpersonal relationships, significantly affecting their quality of life\(^\text{(2)}\).

Therefore, we can see that adolescence is a period of various physical, emotional, and social changes that impact their relationship with the world and how they deal with personal conflicts, questions about life, and their identity. It is, therefore, of the utmost importance that there is early recognition of psychopathological symptoms presented by children and adolescents, including risk behaviors such as the harmful use of alcohol and/or drugs\(^\text{(3)}\).

With this, the idea of health promotion during adolescence is presented in a favorable and advantageous light. Improving public policies and building strategies aimed at promoting this population can prevent social problems and dysfunctions in adulthood, with essential discussions and repercussions, especially concerning mental health. There has been a worldwide increase in psychological symptoms and risky behaviors in adolescents\(^\text{(4)}\).

Among the main psychosocial problems are mental disorders, which are prevalent in this population: anxiety, which directly interferes with psycho-affective and emotional development and depression, the most significant cause of disability at this stage, with mental disorders being responsible for 16% of the causes of injuries and illnesses in adolescents worldwide, which are observed as early as the age of 14 but are not detected or appropriately treated\(^\text{(5)}\). The psychopathological symptoms that recur most often in adolescents are irritability, excessive anger, and emotional outbursts, which are correlated with psychosomatic symptoms such as headaches, stomach aches, and nausea\(^\text{(6)}\).

Thus, among the findings on a national scale, it can be identified that the suicide mortality rate in Brazil is showing an upward trend among the 10–14 age group from 2011 to 2020. In addition, suicide death rates fluctuate between the regions of Brazil, although the Midwest region is in second place with the highest rate\(^\text{(7)}\). In addition, self-inflicted violence by adolescents has also increased on a national scale, portrayed as risk factors for the presence of mental disorders such as depression, anxiety, and the use of alcohol and other drugs, as well as violence and difficulty in dealing with emotions\(^\text{(8)}\).

It is, therefore, known that school is an essential precursor to the social development of adolescents\(^\text{(3,8)}\). The interaction between school and family promotes the emotional strengthening of adolescents, as well as providing a warm welcome and qualified listening, making it possible to reduce the risks of developing psychosocial disorders and promoting the breakdown of paradigms concerning mental health\(^\text{(3,9)}\).

With this initial recognition, we will be able to reflect on possible strategies to reduce the damage caused by serious psychosocial problems, minimize the suffering of families and make health and education professionals more vigilant to possible signs of risk. This effort is fundamental for the promotion of mental health, allowing the early identification of young people at risk of developing mental disorders or resorting to alcohol and/or drug abuse. This study aimed to analyze the emotional health of school adolescents.

Methods

Type of study

It is a parallel-mixed study embedded concomitantly in a dominant model with a quantitative emphasis\(^\text{(10)}\). At the end of the study, the quantitative and
qualitative results are combined to identify commonalities and/or differences between them. To this end, a quantitative cross-sectional study and a descriptive exploratory study with a qualitative approach were carried out. The use of the mixed method is justified by the opportunity to obtain a more in-depth and detailed understanding of the object of study by integrating quantitative and qualitative approaches\(^{[11]}\).

Thus, quantitative data - numbers, percentages, and values - was approached, as well as qualitative data, which considers the content brought up in the adolescents’ interviews. To guarantee the accuracy and reliability of the study, the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) instrument was used to properly assess and report quantitative studies, while the Consolidated Criteria for Reporting Qualitative Research (COREQ) was applied to qualitative studies. In addition, for the studies that used a mixed approach, the Mixed Methods Appraisal Tool (MMAT) recommendations were adopted to ensure methodological validity. These guidelines, together with the recommendations of the Equator Network, were followed to ensure a high level of methodological rigor at all stages of the study.

**Place of the study**

This study was carried out in a public high school in the capital of Mato Grosso, Cuiabá, and the school was chosen because it is a reference for being a comprehensive school, with extended hours and extracurricular activities. Data collection for this study took place between October and December 2021.

**Population and sample**

The selected school had 283 students enrolled in 2021. To calculate the sample size, a 95% confidence level and a 5% margin of error were considered, resulting in a sample size of 164 students. However, considering the period of the pandemic, the difficulty in returning the signed Free and Informed Consent forms from those responsible, and the instability of the internet for carrying out the online interviews, as most participated via cell phone, the final convenience sample was 55 students.

**Selection criteria**

The students included were those aged between 12 and 18, who were regularly enrolled at the school and were present on the day the researchers went to the school to invite them to take part in the study.

**Data collection**

Quantitative and qualitative data were collected concurrently. Data collection in this study took place both in person and online so that more participants could be involved. In the face-to-face setting, a private room was made available for the interviews, and the team responsible for the collection delivered the Free and Informed Consent forms to the adolescents who were of legal age, while those under the age of 18 required the signature of their guardians.

Another means of conducting the interviews was online, due to the COVID-19 global health crisis, through WhatsApp contact indicating information about the meeting with the link to access the Google Meets room. The interviews were recorded using a voice recorder app installed on a smartphone and lasted approximately one hour. They were later transcribed by the researcher, with the help of WebCaptioner software, and members of the research group Center for Mental Health Studies (NESM, in Portuguese, Núcleo de Estudos em Saúde Mental), to ensure the description of the interviewees, were coded numerically.

For data collection, the international research tool Youth Self-Report (YSR) was used to collect information from the perspective of adolescents aged 11 to 18. This instrument is an improvement on the Child Behavior Checklist (CBCL), and its language is easy to understand and consistent with the understanding of the target audience. The questions have simplified al-
ternatives, with items 0 to 2 (never, sometimes, and always). The instrument includes items about the adolescent’s skills, activities, interests, and social interaction, as well as items about behavioral issues such as anxiety, depression, somatic symptoms, aggressive and impulsive behavior, self-esteem, attention problems, thought problems, delinquent behavior, violation of rules, and sociability problems.

Variables in the study

For this study, the items related to the behavioral questions of the instrument were evaluated and divided into categories called syndromes in the Youth Self-Report. For the Anxiety/Depression category, the items: Am I unhappy, sad, or depressed?; Am I apprehensive, distressed, or overly anxious?; Do I try to hurt myself deliberately?; Do I think about killing myself?; Have I tried to kill myself?; For the Somatic Complaints category, the item: Do I experience problems sleeping?; For the Sociability Problems category, the item: Do you feel lonely?; For the Withdrawal/Depression category, the item: Do I prefer to be alone than in the company of others?.

Data treatment and analysis

Concerning quantitative data, Google Forms - used for data collection - generated an Excel spreadsheet with the collected data, which was analyzed using SPSS software, version 22.0, calculating the percentages of responses to the items selected from the instrument.

About the qualitative data, when the adolescents responded positively to the items in the categories, the researcher asked them, “Tell me more about that?”, and these statements were then analyzed using the Content Analysis technique, in which the themes were guided by the selected psychopathological symptoms.

The quantitative and qualitative data were combined through a process of union that occurs convergently during collection, analysis, and discussion. This involves constantly comparing, contrasting, and/or corroborating the findings. To facilitate this integration, we used the strategy of the joint presentation of results, called “joint display,” which is a visual way of illustrating and organizing data from the integration of qualitative and quantitative research.

Furthermore, to maintain anonymity, the interviewees were coded according to the order in which they took part in the research.

Ethical aspects

Throughout the research, the principles of confidentiality, anonymity, and non-maleficence, without exposing research participants to health risks were maintained, according to Resolution 466/2012, and participants were free to participate or not in the research, being able to withdraw consent at any stage of the study without any kind of penalty. All the participants signed a Free and Informed Consent form and obtained a Free and Informed Assent form. The research was approved by the Ethics Committee for Research with Human Beings in the Health Area of the Federal University of Mato Grosso under number 4,466,951/2020 and Certificate of Presentation for Ethical Appraisal: 38241420.4.0000.8124.

Results

This study had a sample of 55 participants, the majority of whom were female (61.8%) and most of whom were 16 years old (25.5%). Regarding psychiatric treatment, 41.8% of the adolescents said that a family member had undergone it, and 40% said that a family member abused psychoactive substances. In addition, 38.2% of the adolescents consumed alcoholic beverages between once and twice a month.

Figure 1 shows some of the items on the scale where more than half of the adolescents had positive
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responses, and items that represent symptoms that require attention and monitoring by specialists. The items related to symptoms of Anxiety/Depression involve statements about sadness due to life history, fear of rejection, and low self-esteem; the item related to Somatic Complaints has statements that point to insomnia caused by anxiety; the item that represents Problems with sociability highlights the fear of being bullied and the difficulty of making oneself understood as factors that lead to loneliness/isolation; and the item related to Withdrawal/Depression presents a depressive mood as the generator of isolation.

<table>
<thead>
<tr>
<th>Items*</th>
<th>Occurrence (%)</th>
<th>Adolescents’ speeches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do I have sleeping problems?</td>
<td>Sometimes: 23,6; Always: 40</td>
<td>When I’m anxious, I have insomnia... Depending on my anxiety, lately, I’ve been going to sleep at 8 pm, but when I’m anxious, I go to bed at 2 am and wake up at 3.30 am (A2). Occasionally, because there are times when I’m up for 3-4 hours in the morning, and then I sleep all day... it’s because I’m sad or worried (A4).</td>
</tr>
<tr>
<td>Am I unhappy, sad, or depressed?</td>
<td>Sometimes: 32,7; Always: 14,5</td>
<td>I feel very depressed and unhappy because of my history (A2).</td>
</tr>
<tr>
<td>Do I prefer to be alone than in the company of others?</td>
<td>Sometimes: 47,2; Always: 20</td>
<td>I feel quite lonely, even when I’m with my friends when I’m with them, I’m happy, but then out of the blue I get sad and start sitting in corners, that’s out of the blue... (A3).</td>
</tr>
<tr>
<td>Am I apprehensive, distressed, or overly anxious?</td>
<td>Sometimes: 34,5; Always: 45,5</td>
<td>I’ve thought about killing myself..., I’m scared, petrified of heights, scared of killing myself up high and not being able to kill myself, and then I think about medicine, but I don’t think it’s going to work because I believe that medicine doesn’t work, so I keep thinking about it a lot... I kept thinking about these things to get my boyfriend’s attention, afraid he’d leave and find someone better... (A1).</td>
</tr>
<tr>
<td>Do I think about killing myself?</td>
<td>Sometimes: 25,4; Always: 9,1</td>
<td>Yes, I’ve tried, and I try, to relieve the pain... It’s the pain of my thoughts... I think that taking my own life will relieve other people’s pain and my pain, which is like a weight (A3). At my father’s funeral, I tried to kill myself, but I couldn’t because I was literally drugged, so I didn’t try to do anything, and well, nowadays, I still cut myself, I still cry for him, and when something happens that reminds me of him, I try to kill myself..., I hurt myself regularly because of my father’s death, and because of the bullying, I’ve tried throwing myself in front of a car (A2). I’ve attempted to hurt myself; I used to do it by hiding in my room..., the cuts, I haven’t done that for a year..., I cut myself to get relief, sometimes I bite my lip, so I don’t do these things... (A1).</td>
</tr>
<tr>
<td>Have you ever tried to hurt yourself on purpose or kill yourself?</td>
<td>Sometimes: 25,4; Always: 7,3</td>
<td>I feel alone practically all the time... I suffered a lot of bullying; I was very excluded from things. It’s the first time I’ve managed to maintain this relationship with some people in my class without fighting, being bullied, or anything. That isn’t a joke, you know. It hurt what people said to me. I remember the bad things they’ve done to me—that they’ve thrown stones at me because they thought I was ugly... Furthermore, I have the feeling that all this is going to happen again, and, as I’m afraid of it, I avoid being around people... I get very upset when it gets close to the day my father died. I cry too much, I faint, I have crises, I panic, everything makes me seize up, I get angry at the same time, and I just want to scream (A2). Sometimes... I’ve felt alone during the pandemic. It’s just that occasionally, it’s nostalgia, loneliness, lack of affection; I’ve always felt alone... I feel alone when I’m with someone, but I can share, but I feel like I can’t express everything I want (A1).</td>
</tr>
<tr>
<td>Do you feel alone?</td>
<td>Sometimes: 49,1; Always: 21,8</td>
<td></td>
</tr>
</tbody>
</table>

*With a high rate of positive responses and requiring attention and monitoring by specialists

Figure 1 – List of Items, Occurrences, and Discourses of Adolescents. Cuiabá, MT, Brazil, 2023
Discussion

As observed in this study, insomnia is a somatic complaint of anxiety. A longitudinal study of almost 7,000 Chinese adolescents showed that the main cause of sleep problems is life stress, such as failing tests, accidents, and conflicts with peers and/or parents, compared to anxiety/depression. These factors, prospectively related, end up being mediators of each other, pointing out that when anxiety/depression increases due to life stress, there is an increase in insomnia and vice versa\(^\text{(15)}\). This raises the need, when assessing and intervening with adolescents at school, to pay attention to mental health and sleep, which are intrinsically related\(^\text{(16)}\). From this perspective, nursing plays an essential role in this process as part of the School Health team and can work with health promotion strategies that respond to these demands\(^\text{(17)}\).

Another important symptom that this study pointed out was that adolescents’ sadness was related to their life history. Thus, life situations that generate social vulnerabilities, such as violence and poverty, are associated with early stress and increase the risk of developing major depressive disorders, which manifest before the age of 18\(^\text{(18)}\). At the same time, evidence suggests that abuse suffered in childhood is a potentiating factor for the development of depression in adulthood, a condition that is linked to acute stress during life, corroborating the onset of the disorder\(^\text{(19)}\).

At the same time, fear of rejection and low self-esteem are related to symptoms of anxiety and depression, and these symptoms are intertwined as adolescents, in their transitional period, are exposed to conditions that favor a negative perception of themselves and others. The literature shows that feelings of rejection and loneliness contribute to low self-esteem, which is a causal factor for the onset of depression in early adolescence\(^\text{(20)}\). The need to belong is an important factor in social relationships since self-esteem enables the perception of how people deal with rejection and acceptance, implying frustrated expectations and corroborating the clarification/concretization of low self-esteem\(^\text{(21)}\).

In addition, according to the study data, problems with sociability and withdrawal/depression can be observed in the daily lives of adolescents who have experienced bullying. Authors point to bullying as a form of violence that causes harmful psychosocial impacts on the adolescent’s life that can last into adulthood; when not identified, they implicate aggressive behavior, violence, consumption of psychoactive substances, delinquent behavior, and risk-taking, directly interfering in social and emotional relationships, as well as interpersonal problems with self-confidence, self-image, and self-perception\(^\text{(22-23)}\).

At the same time, it is also known that adolescence is a phase characterized by multiple changes, especially at the beginning, when biological, psychological, social, and educational changes are taking place. Evaluating the emotional state of these adolescents, especially those who are most vulnerable, makes it possible to discover signs that can be predictive of emotional distress, such as a low sense of well-being and problems with self-esteem, as well as associating life history, low self-esteem, and fear of rejection as generators of anxiety and depression, implying somatic complaints such as insomnia and highlighting bullying as a driver of sociability problems and adolescent withdrawal\(^\text{(24-25)}\).

As such, this study has its limitations, as it did not reach the sample calculation required to strengthen the quantitative data and is represented by a convenience sample. Data saturation was reached in the quantitative phase, emphasizing that this was a study in which data was provided to the school so that they could carry out and report on activities to promote the mental health of these adolescents at school. This led to the construction of three care-educational booklets in partnership with students and teachers.

Study limitations

This study has limitations as it was carried out with a representative sample from one school, making it impossible to generalize the data. Furthermore, as this is an area that has not yet been explored in Brazi-
lian literature, the discussion was limited to data from the Brazilian and local reality.

**Contributions to practice**

In terms of contributions to nursing practice, this study made it possible to identify the needs and social determinants of mental health that are important to work on in the mental health promotion practice of nurses who are part of the Psychosocial Care Network services, especially in primary care. It will allow nurses, with the support of other professionals and teachers, to develop evidence-informed strategies, contributing to the recently approved National Policy for Psychosocial Care in School Communities.

In addition, the work highlights the importance of strategies that seek to consider the adolescent’s biopsychosocial and spiritual context. The school’s interrelationship with the family, the health network, and the professionals who make it up need to be guided by a holistic perspective on this young person and the possible signs of risk they present. This will help reduce the associated psychosocial problems, strengthen bonds, and promote the mental health of these young people.

**Conclusion**

The data showed that most of the students had symptoms of anxiety, and sadness, preferred to be alone and felt lonely, and that 32.7% had already self-harmed or attempted suicide. In addition, the adolescents reported sadness due to their life story, fear of rejection and low self-esteem, sleep problems due to anxiety, loneliness due to fear of being bullied, difficulty in making themselves understood, and due to depressive symptoms.

**Authors’ contribution**

Conception and design or analysis and interpretation of data: Félix IRS, Ribeiro AJS, Campos DS, Bittencourt MN. Writing of the manuscript or relevant critical review of the intellectual content, Final approval of the version to be published, and Agreement to be responsible for all aspects of the manuscript: Félix IRS, Ribeiro AJS, Campos DS, Souza ARL, Morais MS, Santos Junior DF, Bittencourt MN.

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